★5205. **Leukoplakia and erythroplakia of the cervix uteri (Russian text)** STANKEVICH A. A. Inst. of Oncol., Med. Acad. of Sci., Leningrad *Vopr. Onkol.* 1959, 5/8 (191–196) Tables 4

This is a study of 28 cases of leukoplakia and 6 of erythroplakia, 9 of the former and 3 of the latter occurring after various inflammatory diseases. The most effective treatment was by means of electro-excision or surgical removal of the cervix. Radium treatment of these types of dyskeratosis resulted often in severe complications such as amenorrhoea, radiation epitheliitis and erosion, the latter leading to atrophy and constriction of the vagina. However, radium treatment is advocated in cases of large inoperable dyskeratoses affecting also the fornices and the vaginal wall. (XVI, 10)

BAZHENOVA, K.M.; DEMIN, V.N.; STANKEVICH, A.A.

Second Leningrad Municipal Oncological Conference. Vop.onk. 5 no.8:236-239 '59. (MIRA 12:12)
(ONCOLOGY--CONGRESSES)

STANKEVICH, A.A. (Leningrad, Lisiy Nos, Losinaya ul., d.18)

New-model cicrular colpostat for radium therapy. Vop.onk. 5 no.9:374-378 '59. (MIRA 12:12)

1. Iz kafedry onkologii (zav. - prof. A.I. Rakov) Gosudarstvennogo instituta dlya usovershenstvovaniya vrachey im. S.M. Kirova i radiyevoy laboratorii (zav. - doktor med.nauk N.D. Perumova) Instituta onkologii AMN SSSR (dir. - deystvitel'nyy chlen AMN SSSR prof. A.I. Serebrov).
(RADIUM ther.)
(CERVIX UTERINE neopl.)

STANKEVICH, A.A., kand.med.nauk (Leningrad, L[illegible]siy Nos, Losinaya, d.18)

Rectal complications in the treatment of cancer of the cervix with radiant energy. Vest.rent. i rad. 34 no.3:41-46 My-Je '59. (MIRA 12:10)

1. Iz kafedry onkologii (zav. - prof.A.I.Rakov) Instituta dlya usovershenstvovaniya vrachey (dir. - prof.N.I.Blinov) i Instituta onkologii (dir. - chlen-korrespondent AMN SSSR prof.A.I.Serebrov) Akademii meditsinskikh nauk SSSR.

(CERVIX NEOPLASMS, ther.
radium & x-ray, rectal compl. (Rus))
(RADIUM, ther. use
cancer of cervix, rectal compl. (Rus))
(RADIOTHERAPY, in various dis.
same)
(RECTUM, dis.
caused by racium & x-ray ther. of cancer of cervix (Rus))

STANKEVICH, A.A.

Significance of secondary radiation from filters of Co^{60} preparations during intracavitary use. Med.rad. 5 no.7:32-36 '60. (MIRA 13:12)

(COBALT--ISOTOPES) (RADIATION--PHYSIOLOGICAL EFFECT)

STANKEVICH, A.A.

Protective safe for storing radioactive substances. Vop. onk. 6 no.4:79-81 Ap '60. (MIRA 14:3)
(RADIOISOTOPES—STORAGE)

STANKEVICH, A.A.

Protective machine for washing and drying radioactive preparations.
Vop. onk. 6 no. 10:112-114 0 '60. (MIRA 14:1)
(RADIATION PROTECTION)

STANKEVICH, A.A.

Protective table for work with radioactive preparations. Vop. onk. 7 no.3:125-127 '61. (MIRA 14:5)
(RADIATION PROTECTION)

STANKEVICH, A.A. (Leningrad, Lisiy Nos, Losinaya ul., 18)

New construction of a protective safe for keeping radioactive substances. Vop. onk. 7 no. 4:117-120 '61. (MIRA 14:4)

1. Iz radiyevoy laboratorii (zav. - doktor med. nauk N.D. Perumova) Instituta onkologii AMN SSSR (dir. - deystvitel'nyy chlen AMN SSSR prof. A.I. Serebrov).
(RADIOACTIVITY—SAFETY MEASURES)

STANKEVICH, A. A.

Calculation of gamma ray doses from volumes of varying geometric form uniformly filled with the Co^{60} radioisotope. Vop. onk. 8 no.5:80-87 '62. (MIRA 15:7)

1. Iz radiyevoy laboratorii (zav. - d-r med. nauk N. D. Perumova) Instituta onkologii AMN SSSR (dir. - deystv. chl. AMN SSSR, prof. A. I. Serebrov)

(RADIATION--DOSAGE)
(COBALT--ISOTOPES)

STANKEVICH, A.A. (Leningrad, prospekt Engel'sa, 28, kv.111)

Determination of doses in intracavital treatment of cancer of the uterus taking into consideration the position of radioactive preparations in the pelvis. Vop. onk. 8 no.9:75-79 '62. (MIRA 17:6)

1. Iz radiyevoy laboratorii (zav.- doktor med. nauk N.D. Perumova) Instituta onkologii AMN SSSR (dir.- deystvitel'nyy chlen AMN SSSR, prof. A.I. Serebrov).

STANKEVICH, A.A.

Evaluation of the photographic method of dosimetry with small dimension cameras in radiotherapy of cancer of the cervix uteri. Vop. onl. 9 no.1:106-111 '63. (MIRA 16:5)

1. Iz radiyevoy laboratorii (zav. doktor med.nauk N.D.Perumova) Instituta onkologii AMN SSSR (direktor - deystvitel'nyy chlen AMN SSSR Prof. A.I.Serebrov).
(UTERUS--CANCER) (PHOTOGRAPHY, MEDICAL)
(RADIATION--DOSAGE)

STANKEVICH, A.A. (Leningrad, [illegible], prospekt Engel'sa, 28, kv. 111,

Accelerated photographic method in establishing isodose curves in interstitial radioisotope therapy. Vop. onk. 9 no.10:103-108 '63.
(MIRA 17:12)

1. Iz radiyevoy laboratorii (zav. - doktor med. nauk N.D.Perumova) Instituta onkologii AMN SSSR (direktor - deystvitel'nyy chlen AMN SSSR prof. A.I.Serebrov).

STANKEVICH, A.A.

Calculation of doses in intracavitary treatment of cancer of the uterus with radioactive preparations using a rectangular coordinate system. Vop. onk. 11 no.1:80-108 '65. (MIRA 18:6)

1. Iz radiyevoy laboratorii (zav. - doktor med.nauk N.D.Perumova) Instituta onkologii AMN SSSR (dir. - deystvitel'nyy chlen AMN SSSR prof. A.I.Serebrov).

STANKEVICH, A.A.

Economic efficiency of planned technological processes for core-making. Avt.prom. 31 no.5:37-39 My '65. (MIRA 18:5)

1. Minskiy filial Nauchno-issledovatel'skogo instituta tekhnologii avtomobil'noy promyshlennosti.

STANKEVICH, A.A.

Calculation of doses in a plane not coincident with the plane of isodoses in intracavital treatment of cancer of the cervix uteri. Vop. onk. 11 no.3:106-113 '65. (MIRA 18:6)

1. Iz radiyevoy laboratorii (zav. - doktor med. nauk N.D. Perumova) Instituta onkologii AMN SSSR (dir. - deystvitel'nyy chlen AMN SSSR prof. A.I. Serebrov), Moskva.

20151

S/181/61/003/002/049/050
B102/B201

9.4300 (and 1147, 1155, 1158)

AUTHORS: Smolenskiy, G. A., Chang Tsung, and Stankevich, A. K

TITLE: Effect of electron diffusion upon the radio-frequency dispersion of the magnetic permeability of garnet-type ferrites

PERIODICAL: Fizika tverdogo tela, v. 3, no. 2, 1961, 663-667

TEXT: In weak electric and magnetic fields; certain ferrites display relaxation processes which are correlated with electron diffusion. The mechanism of these relaxation processes has never been fully clarified so far. In this connection, a study was made of the complex magnetic permeability and the complex dielectric constant, as well as of the dielectric and semiconductor properties (the latter were studied by Ya. M. Ksendzov and V. A. Stogova). Concerning the study of the dispersion of the magnetic permeability a report has already been given at the 3rd All-Union Conference concerned with physics, the physicochemical properties of ferrites, and the physical bases of their application (June, 1959, Minsk). The polycrystalline specimens were prepared by the usual ceramic technique, using analytically pure

Card 1/5

S/181/61/003/002/049/050
B102/B201

Effect of electron ...

iron oxide and yttrium oxide consisting of Y_2O_3 for 99.9%. Initial and final sintering temperatures amounted to 1150 and 1450°C. The latter temperature was reduced by adding 0.5-1% copper oxide to the yttrium ferrite. Aside from the polycrystalline specimens also single crystals were prepared (by Titova) as well as the following solid solutions: $Y_3Fe_{4.75}Al_{0.25}O_{12}$, $Y_3Fe_4AlO_{12}$, and $Y_3Fe_{4.8}Cr_{0.2}O_{12}$. Measurements included the frequency dependence of μ' and μ'' in weak fields (H ~ 1 millioersted) in the frequency range of 10 kc/sec-25 Mc/sec. The frequency dependence of μ' and μ'' of single crystals at room temperature is illustrated in Fig. 1. A study of the low-frequency maximum of μ'' at different temperatures showed that it was to be identified as dispersion with relaxation mechanism. This maximum shifts toward a higher frequency with a rise of temperature. The mean activation energy was found to be U = 0.375 ev. Approximate calculations indicated that domain boundaries were displaced in the frequency and temperature ranges considered. The magnetic spectra of garnet-type ferrites remind one of the so-called double-dispersion spectra - shf dispersion arises beside r-f dispersion. The yttrium ferrites investigated were synthesized at high temperatures (1400-1560°C), and contained about 0.2% Fe^{2+} (of the total iron amount). Resistivity at room temperature ranged between

Card 2/5

Effect of electron ...

10^6 and 10^7 ohm·cm. When the specimens were heated in oxygen current, the concentration of Fe^{2+} ions was reduced, and resistivity increased. Fig. 2 shows the frequency dependence of μ' and μ" at room temperature and H≈1 moe of polycrystalline specimens prior to (curves 1 and 1') and after (2, 2') heating in oxygen current (15 hr at 1000°C). 1-2% of CuO was added to some of the specimens (curves 3 and 3'), their resistivity ranged between 10^{10} and 10^{11} ohm·cm at room temperature; similar results were obtained on specimens with 1-2% Mn_2O_3 addition (4, 4'). For a comparison, Fig. 2 shows, moreover, the frequency dependence of μ' of single crystals (curve 5). The single crystals had a resistivity of 10^{12} ohm·cm. A study of the three abovementioned solid solutions showed that μ' is reduced with increasing Al^{3+} concentration, and that the maximum of μ" is shifted toward higher frequencies. The introduction of Cr^{3+} increases μ'. The magnetic and electric spectra (i.e., μ'(f) and ε'(f)) of the ferrites investigated have a similar course. In all cases where there arises electron diffusion, μ' and ε' attain high values at small frequencies. A final clarification of the effect of electron diffusion upon the dispersion of magnetic permeability requires further studies. V. A. Ioffe, A. G. Gurevich, and I. Ye. Gubler are men-

Card 3/5

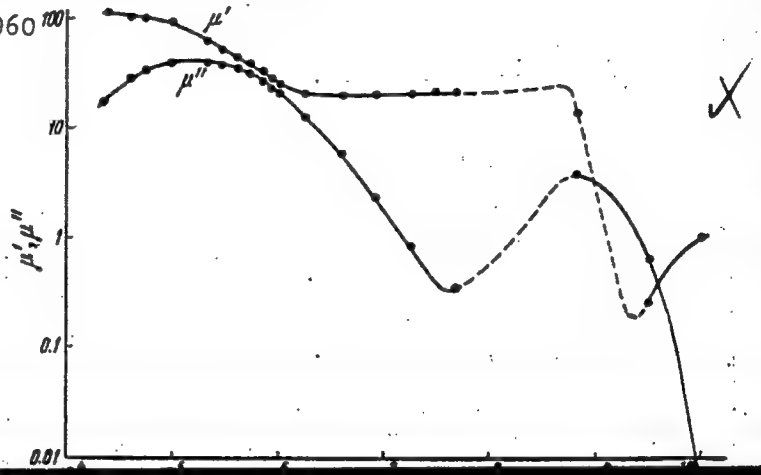
Effect of electron ...

tioned. There are 2 figures and 8 references: 5 Soviet-bloc and 2 non-Soviet-bloc.

ASSOCIATION: Institut poluprovodnikov AN SSSR Leningrad (Institute of Semiconductors of the AS USSR, Leningrad)

SUBMITTED: September 3, 1960

Fig. 1



Card 4/5

GRASHCHENKOV, N.I., professor; KASSIL', G.N. (Moskva):(Po materialam S.P. Vinitskovskoy, G.S. Vorsa, S.M. Grach, N.G. Grachenoy, M.B. Dunayevskoy F.A. Rosinoy, V.V. Stankevich. A.L. Sheakhmana, A.A. Shmidt)

Data on nasal reflex therapy in medical practice. Klin. med. 33 no. 9:12-17 S '55. (MLRA 9:2)

1. Iz terapevticheskogo, nervnogo i fizioterapevticheskogo otdeleniy Moskovskoy ordena Lenina bol'nitsy imeni S.P. Botkina i nauchno-issledovatel'skoy gruppy pri otdelenii biologicheskikh nauk Akademii nauk SSSR. 2. Deystvitel'nyy chlen AMN SSSR (for Grashchenkov)

(THERAPEUTICS,
mass reflex ionogalvanic ther. technic)
(ELECTROTHERAPY,
mass reflex ionogalvanic ther. technic)

SHCHEGOLEV, Lev Illarionovich; EL'MANOVICH, Lidiya Yakovlevna; STANKEVICH, Anna L'vovna; YERMOLAYEVA, I.A., red.; LEBEDEVA, Z.V., tekhn. red.

[Textbook of the English language as an aid for reading and translating medical literature] Uchebnoe posobie po angliiskomu iazyku dlia chteniia i perevoda meditsinskoi literatury. Izd.2., ispr. i dop. Leningrad, Medgiz, 1962. 382 p. (MIRA 15:7)
(ENGLISH LANGUAGE—TECHNICAL ENGLISH)
(MEDICINE—TERMINOLOGY)

STANKEVICH, A.M.; STANKEVICH, I.M., inzh.

Measures which made possible the improvement of the technical conditions of NB-406 engines. Elek. i tepl.tiaga 6 no.8:16-18 Ag '62. (MIRA 17:3)

1. Zamestitel' nachal'nika depo Kurgan Yuzhno-Ural'skoy dorogi (for A.M.Stankevich). 2. Apparatnyy tsekh depo Kurgan Yuzhno-Ural'skoy dorogi (for I.M.Stankevich).

PODBEL'SKIY, G.N., kand.tekhn.nauk; STANKEVICH, A.S., inzh.

Industrial-genetic classification of humic coals (for discussion). Nauch. trudy KuzNIIUgleobog. no.1:90-108 '62. (MIRA 16:8)
(Kuznetsk Basin--Coal--Classification)

BORODULIN, V.A., inzh.; STANKEVICH, A.S., inzh.; ARTAMONOV, V.V., inzh.

Investigating the effect of the depth of preparation on the coking properties of petrographically heterogenous Kuznetsk Basin coal. Nauch. trudy KuzNIIUglekhog. no.2:198-207 '64. (MIRA 17:10)

STANKEVICH, A.S., [illegible]; ARKHANGEL'SKIY, V.V., inzh.; LUKANIN, A.A., inzh.; KOROLIUNOV, V.A., inzh.

Pilot plant coking of prepared coal from seams of lower subseries of the Balakorka series in the Prokop'yevsk-Kiselevsk region. Nauch. trudy KuzNIIUgleobog. no.2:207-212 '64. (MIRA 17:10)

STANKEVICH, A.S., inzh.; PODBEL'SKIY, G.N., kand.tekhn.nauk

Using the method of the coking laboratory of the Institute of Mineral Fuels to study the coking capacity of Kuznetsk Basin coals. Nauch. trudy KuzNIIUgleobog. no.1:108-117 '62. (MIRA 16:8)

(Kuznetsk Basin--Coal--Carbonization)

NIKOL'SKAYA, V.V.; STANKEVICH, A.V.

Some physical geographical features of the basin in the upper reaches of the Vel'mo River (Stony Tunguska Basin). Trudy Inst. geog. no.64:193-200 '55. (MLRA 8:11)
(Stony Tunguska Basin--Physical geography)

KOLKER, O.N.; STANKEVICH, A.V.

Electronic automatic multiple-point chart-recording instruments and assemblies. Mash. i neft. obor. no.2:44-48 '63. (MIRA 17:8)

1. Lenteplopribor.

STANKEVICH, A.Ye., inzhener (g. Moskva)

New type pumping station for infiltration water intakes. Stroi. pred.neft.prom. 2 no.5:30-31 My '57. (MIRA 10:7)
(Pumping stations)

STANKEVICH, B. S.:

STANKEVICH, B.S.: "The blood supply of the tendons of the thigh muscles." Irkutsk State Medical Inst. Irkutsk, 1954. (Dissertation for the Degree of Candidate in Medical Sciences)

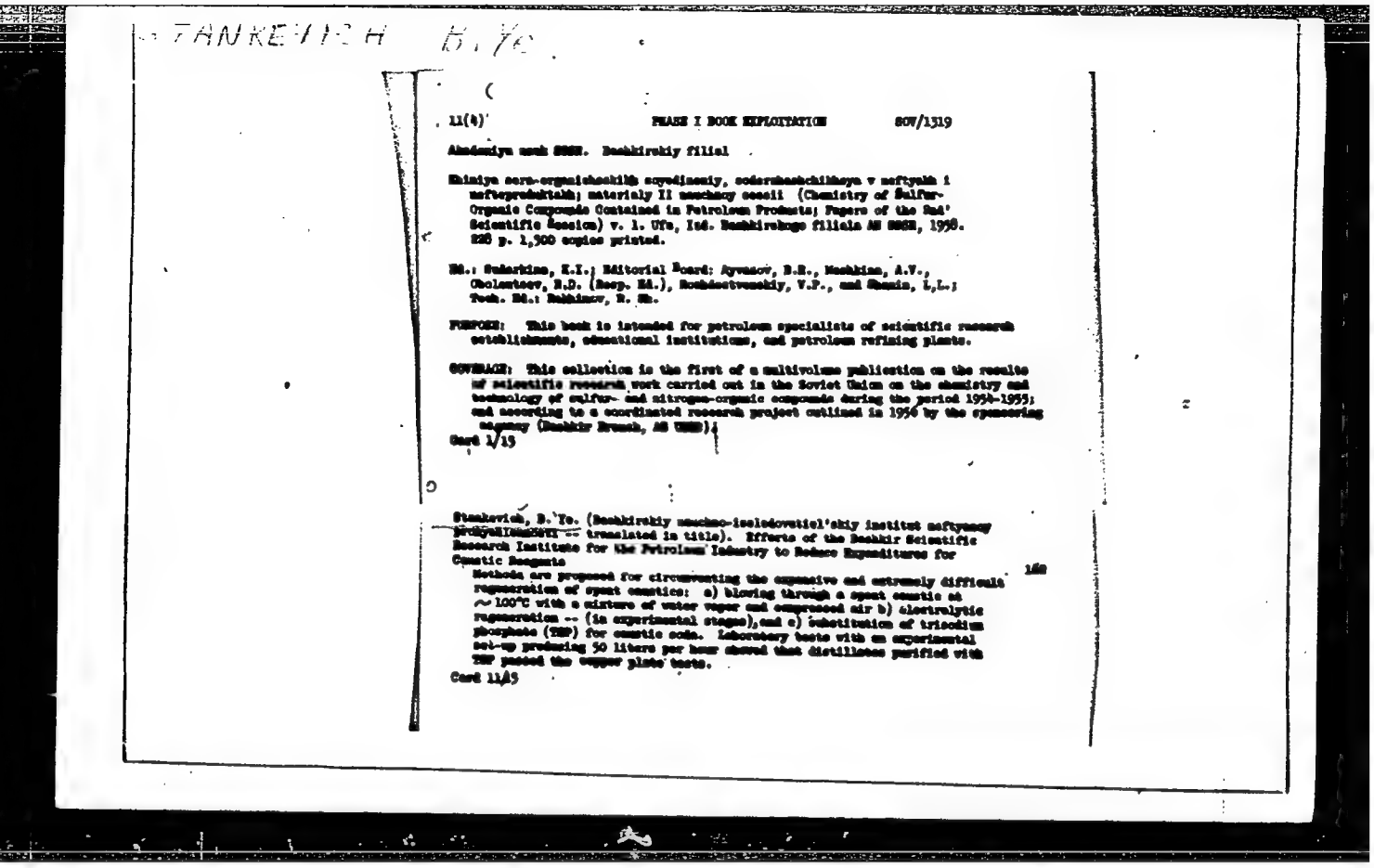
So: Knizhnaya Letopis', No. 18, 1956

STANKEVICH, B.Ye.

STANKEVICH, B.Ye.; ISAYEVA, M.I.

Selection of sites for air intake for ventilation of buildings at petroleum refineries. Gig. i san. no.6:27-34 Je '54. (MLRA 7:6)

1. Iz Ufimskogo neftyanogo nauchno-issledovatel'skogo instituta.
(VENTILATION,
*selection of sites for air intake in petroleum-refining plants)



TANKEVICH B.Ye.

11(6) PHASE I BOOK EXPLOITATION SOV/1319

Akademiya nauk SSSR. Bashkirskiy filial

Khimiya sero-organicheskikh soyedineniy, soderzhashchikhsya v nefteyakh i nefteproduktakh; materialy II nauchnogo soveshchaniya (Chemistry of Sulfur-Organic Compounds Contained in Petroleum Products; Papers of the 2nd Scientific Session) v. 1. Ufa, Izd. Bashkirskogo filiala AN SSSR, 1958. 226 p. 1,500 copies printed.

Ed.: Sukhikina, K.I.; Editorial Board: Ayvazov, B.B., Mashkina, A.V., Obolentsev, R.D. (Resp. Ed.), Rozhdestvenskiy, V.F., and Shamin, I.L.; Tech. Ed.: Bakhireev, R. Sh.

PURPOSE: This book is intended for petroleum specialists of scientific research establishments, educational institutions, and petroleum refining plants.

COVERAGE: This collection is the first of a multivolume publication on the results of scientific research work carried out in the Soviet Union on the chemistry and technology of sulfur- and nitrogen-organic compounds during the period 1956-1955; and according to a coordinated research project outlined in 1956 by the sponsoring agency (Bashkir Branch, AS USSR).

Card 1/15

Stankevich, B.'Ye. (Bashkirskiy nauchno-issledovatel'skiy institut neftyanoy promyshlennosti -- translated in title). Efforts of the Bashkir Scientific Research Institute for the Petroleum Industry to Reduce Expenditures for Caustic Reagents 168

Methods are proposed for circumventing the expensive and extremely difficult regeneration of spent caustics: a) blowing through a spent caustic at ~ 100°C with a mixture of water vapor and compressed air b) electrolytic regeneration -- (in experimental stages), and c) substitution of trisodium phosphate (TSP) for caustic soda. Laboratory tests with an experimental set-up producing 50 liters per hour showed that distillates purified with TSP passed the copper plate tests.

Card 11/15

11(4) SOV/2075

PART I BOOK EXPLOITATION

Akademiya nauk SSSR. Institut nefti, VNII

Khimiya sernoorganicheskikh soyedineniy, soderzhashchikhsya v neftyakh i
nefteproduktakh; [materialy III nauchnoy sessii] (Chemistry of Sulphur
Organic Compounds Contained in Petroleum and Petroleum Products; [Papers of the
Third Scientific Session]) Moscow, Izd-vo AN SSSR, 1959. 376 p.
2,000 copies printed. Errata slip inserted.

Editorial Board: B.D. Gaylarov (Resp. Ed.) Doctor of Chemical Sciences;
G.S. Gal'perin, Doctor of Chemical Sciences; Ya. S. Chertkov, Doctor of Technical
Sciences; V.V. Fomin, Candidate of Technical Sciences; and V.P. Pozdnyshevskiy,
Candidate of Chemical Sciences; M.A. of Publishing House: I.I. Krasavi
Tech. Ed.: S.P. Polenova.

PURPOSE: This book is intended for chemists, chemical engineers, and technicians
specializing in the chemistry of petroleum.

COVERAGE: The book is a collection of papers presented at the Third Scientific
Session on the Chemistry of Organic Sulfur- and Nitrogen Compounds Contained
in Petroleum and Petroleum Products. The Session was held in Ufa,
June 3-8, 1957. The book consists of six sections: 1) Synthesis, charac-
terization, and analysis of organic sulfur compounds; 2) Separation and
composition of organic sulfur compounds contained in petroleum and petroleum
products; 3) Transformation of organic sulfur compounds by thermal catalysis;
4) Corrosive properties of and tar formation in sulfur-containing petroleum
and petroleum products; 5) Uses of organic sulfur compounds and hydrogen
sulfide; 6) Physiological properties of organic sulfur compounds. No personali-
ties are mentioned. There are 315 references, of which 179 are Soviet,
118 English, 5 French, 12 German, and 1 Czech.

TABLE OF CONTENTS

AVAILABLE: Library of Congress

Card 10/10

SOV/81-59-16-58505

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 16, p 410 (USSR)

AUTHORS: Isayeva, M.I., Kalnina, R.V., Stankevich, B.Ye., Eygenson, A.S.

TITLE: The Alkalinization of Gasoline Distillates by Trisodiumphosphate

PERIODICAL: Tr. Bashkirsk. n.-i. in-t po pererabotke nefti, 1959, Nr 1, pp 100-109

ABSTRACT: The results of the work of a pilot installation at the Ufa Oil Refinery are presented (a diagram is given). The gasoline distillate of thermal cracking at 44 - 200°C with a H_2S content in the amount of 0.017 - 0.026 weight % after alkalinization with trisodiumphosphate (I) stands a test with a copper plate. The recommended concentration of an aqueous I solution is 5 - 5.5 weight %, the sulfur content 7.5 g/l. The regeneration of the solution is carried out by boiling for 1 hour under vacuum at 120 - 130 mm Hg. On introducing alkalinization by I in oil refineries the consumption of NaOH and the quantity of sulfurous-alkaline industrial sewage will decrease sharply. The purification of gasoline by I should be cheaper than the purification by NaOH.

S. Rozenoyer.

Card 1/1

ISAYEVA, M.I.; STANKEVICH, B.Ye.; TOROPTSEV, N.G.

Ways for reducing caustic soda consumption in alkalizing clear petroleum products. Trudy BashNII NP no.1:110-119 '59.
(MIRA 12:6)

(Petroleum products)
(Sodium hydroxide)

STANKEVICH, B.Ye.; MITKALEV, B.A.; ISAYEVA, M.I.

Aeration purification of sewage containing hydrogen sulfide at petroleum refineries. Trudy BashNII NP no.1:205-215 '59.
(MIRA 12:6)
(Sewage--Purification) (Hydrogen sulfide)
(Petroleum refineries--By-products)

SOKOLOV, F.A.; STANKEVICH, B. Ye.; TOROPTSEV, N.G.

Developing methods for recovering sodium hydroxide from the alkali wastes of petroleum refining. Trudy Bash NII NP no.3:153-157 '60. (MIRA 14:4)
(Sodium hydroxide)

SOKOLOV, F.A.; STANKEVICH, B.Ye.; TOROPTSEV, N.G.

Development of methods for the utilization of sulfur removed in the refining of clear petroleum products. Khim.sera-i azotorg.soed.sod. v neft.i nefteprod. 3:407-410 '60. (MIRA 14:6)

1. Bashkirskiy nauchno-issledovatel'skiy institut po pererabotke nefti.

(Sulfur) (Petroleum products)

STANKEVICH, B.Ye.

Developing the conditions for desalting sour Arlan oil. Trudy Nash NIINP no.5:22-32 '62. (Mas 17:10)

[illegible], E.A.

Results of organizing compound treatment for patients with poliomyelitis sequelae in Kiev Province. Ortop., travm. i protez. 26 no.3:44-45 Mr '65. (MIRA 18:7)

1. Iz Ukrainskogo instituta ortopedii i travmatologii (dir. - dotsent I.P.Alekseyenko). Adres avtora: Kiyev 54, ul. Vorovskogo, dom 27, Institut ortopedii i travmatologii.

5 (3)
AUTHORS: Vanag, G. Ya., Gren, E. Ya., Stankevich, E. I.

SOV/153-2-2-13/31

TITLE: Polycyclic Heterocyclic Compounds (Mnogoyadernyye geterotsiklicheskiye soyedineniya). I. 4-Phenyldibenzoylene Pyridine (I. 4-fenil-dibenzoilenpiridin)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1959, Vol 2, Nr 2, pp 210-214 (USSR)

ABSTRACT: Recently the authors proved (Ref 1) that 4-phenyl-2,3 (CO), 6,5 (CO)-dibenzoylene pyridine (VII) develops when benzalindandione-1,3 (II) is heated with ammonium acetate in glacial acetic acid. The mechanism of this reaction was explained. It proved that under the conditions of this reaction benzylindandione (II) partially decomposes in its primary compounds: benzaldehyde and indandione-1,3 (I). The latter immediately is added to the active ethylene linkage of the benzalindandione and forms diindandionylphenyl methane (III) (Ref 2). The compounds of the latter type easily split off a water molecule from their enol forms (IV) and result in the corresponding pyranes (V). In these however the oxygen bridge is replaced by nitrogen under the influence of ammonia. In this

Card 1/3

process they changed into the corresponding dihydropyridines (VI) (Refs 3-8). It proved however that heminal diindandione compounds of the type (III) are immediately changed into the corresponding 1,4-(or 3,4 ?)-dihydropyridines (Ref 9) under the influence of ammonium acetate. The mechanism of that change is not quite clear yet. These dihydropyridines are transformed into pyridines if exposed to the air (or quicker, if H_2O_2)(see scheme). Since the method given above is the quickest way for producing aryldibenzoylene pyridines, the problem should be dealt with in detail, in order to explain its scope of application. As expected, o- and p-nitrobenzal indandiones produced the corresponding nitrophenyl-dibenzoylene pyridines (VIII, IX) (Ref 2). In contrast to further statements given in reference 2, the authors succeeded in producing the corresponding dibenzoylene pyridines by means of heating the arylidene indandione which contained a nucleophilic substitute. The reaction however takes place much more slowly and the output is much lower. Anisal, salicylal, vanillal and veratral indandiones reacted positively

Polycyclic Heterocyclic Compounds. SOV/153-2-2-13/31
I. 4-Phenyldibenzoylene Pyridine

in producing the substances X-XIII. All of the produced phenyldibenzoylene pyridines are yellow or orange substances with a very high (often over 300°) melting point, only the ortho-derivatives are crystalline. Their chemical activity is low. The rest of their properties is described. Since the acylates of the oxy compounds under discussion are yellow, and their alkaline salts are red or red violet, one has to draw the conclusion that during the salt production a tautomeric change of the oxy compounds takes place. Finally analogies of the recently published article, reference 10, are discussed. A simplification of the synthesis of the aryl-dibenzoylene pyridines can be attained, if the arylidene indandiones are not isolated. There are 13 references, 10 of which are Soviet.

ASSOCIATION: Latviyskiy gosudarstvennyy universitet; Kafedra organicheskoy khimii (Latvian State University, Chair of Organic Chemistry)

SUBMITTED: February 10, 1958
Card 3/3

S/079/60/030/05/46/074
B005/B016

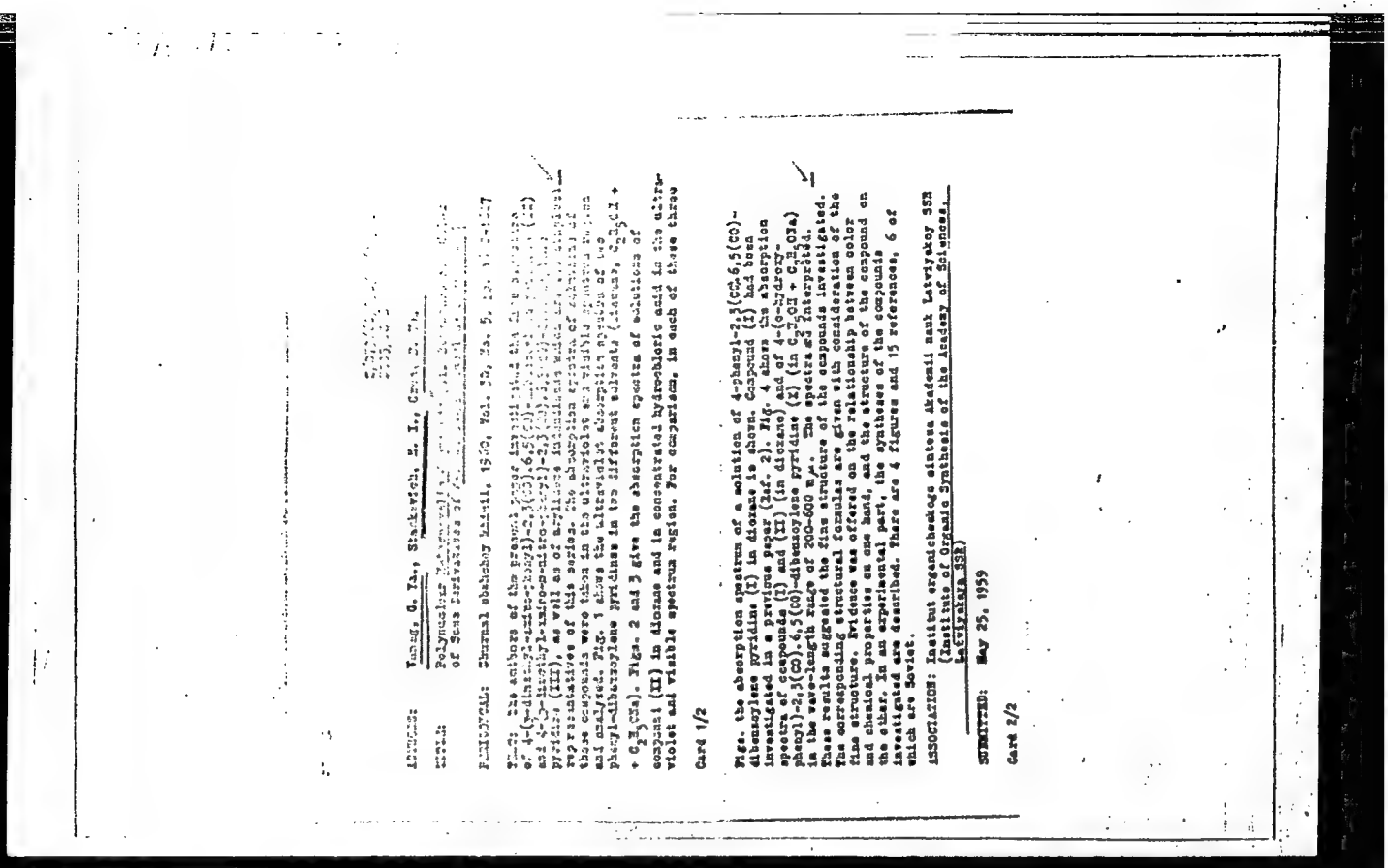
AUTHORS: Vanag, G. Ya., Stankevich, E. I., Gren, E. Ya.

TITLE: Polynuclear Heterocyclic Compounds. II. Structure and Color of Some Derivatives of 4-Phenyl-dibenzoylene Pyridine

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 5, pp. 1620-1627

TEXT: The authors of the present paper investigated the fine structure of 4-(p-dimethyl-amino-phenyl)-2,3(CO).6,5(CO)-dibenzoylene pyridine (II) and 4-(p-dimethyl-amino-m-nitro-phenyl)-2,3(CO).6,5(CO)-dibenzoylene pyridine (III), as well as of arylidene indandiones which are the simplest representatives of this series. The absorption spectra of solutions of these compounds were taken in the ultraviolet and visible spectrum region and analyzed. Fig. 1 shows the ultraviolet absorption spectra of two phenyl-dibenzoylene pyridines in two different solvents (dioxane, C_2H_5OH + C_2H_5ONa). Figs. 2 and 3 give the absorption spectra of solutions of compound (II) in dioxane and in concentrated hydrochloric acid in the ultraviolet and visible spectrum region. For comparison, in each of these three

Card 1/2



VANAG, G.Ya.; STANKEVICH, E.I.

Polynuclear heterocyclic compounds. Part 4: Reaction of bis (dimedonyl)methanes with ammonium acetate. Zhur.ob.khim. 30 no.10:3287-3292 O '61. (MIRA 14:4)

1. Institut organicheskogo sinteza Akademii nauk Latviyskoy SSR.
(Ammonium acetate) (Methane) (Acridinedione)

STANKEVICH, E.I.; VANAG, G.Ya. [Vanag, G.], akademik

Asymmetric three-carbon condensations with 1,3-indandione. Dokl. AN SSSR 140 no.3:607-609 S '61. (MIRA 14:9)

1. Institut organicheskogo sinteza AN Latviyskoy SSR. 2. AN Latviyskoy SSR (for Vanag).
(Indandione) (Condensation products (Chemistry)

S/081/62/000/013/016/054
B158/B144

AUTHOR: Stankevich, E.

TITLE: Reaction of arylidenindandiones with imines of cyclic β-diketones and ammonium acetate

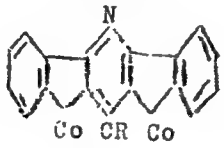
PERIODICAL: Referativnyy zhurnal. Khimiya, no. 13, 1962, 248, abstract 13Zh222 (Sb. "Tsiklich. β-diketony". Riga, AN LatvSSR, 1961, 269-274)

TEXT: Dimedone imine reacts with arylidenindandiones [Ar = C_6H_5, p-$NO_2C_6H_4$-$N(CH_3)_2C_6H_4$, m-CH_3O, p-C_6H_3OH] in CH_3COOH, forming accordingly 2,3(CO)-benzoylene-7,7-dimethyl-4-aryl-5-keto-1,4,5,6,7,8-hexahydroquinolines, dark red compounds (a solution in alcoholic alkali is violet-blue) which are easily oxidized by HNO_3 to the corresponding tetrahydroquinolines. An analogous reaction of benzal indandione with 5,5-dimethyl-3-butyl aminocyclohexene-2-one-1 leads to N-substituted benzoylene hexahydroquinoline. By heating arylidenirdandiones with ex-

Card 1/2

Reaction of arylidenindandiones ...

cess CH_3COONH_4 in glacial CH_3COOH, yellow or orange substances (Ia-m) are obtained. I is synthesized also by heating a mixture of indandione, aldehyde and CH_3COONH_4 in glacial CH_3COOH. The mechanism of the reaction is discussed as well as the formation of a dark colour on dissolving in alcoholic alkali. Data are given on uv-spectra for I.



I

In all cases R = C_6H_4X; (a) X = H, (b) X = 2'-NO_2, (c) X = 3'-NO_2, (d) X = 4'-NO_2, (e) X = 4'-$N(CH_3)_2$, (f) X = 4'-OCH_3, (g) X = 3'-OCH_3,4'-OH, (h) X = 2'-OH, (i) X = 3'-OCH_3, 4'-OCH_3, (k) X = 2'-OH, 3'-OCH_3, (l) X = 3'-NO_2, 4 $N(CH_3)_2$, (m) X = 3'-OH. [Abstracter's note: Complete translation.]

Card 2/2

ZHIZHEL', G.I., inzh.; STANKEVICH, E.M., inzh.

Manufacture of pressureless socket pipes by centrifugation. Mekh. stroi. 19 no.4:14-16 Ap '62. (MIRA 15:9)
(Pipe, Concrete)

VANAG, G.Ya.; STANKEVICH, E.Yu.; ROMADAN, Yu.P.

Improvement of the method for producing hexenal. Med.prom. 13
no.9:27-28 S '59. (MIRA 13:1)

1. Institut organicheskogo sinteza Akademii nauk Latviyskoy SSR.
(HEXOBARBITAL)

KONTORER, L., inzh.; STANKEVICH, F., inzh.

Using gas fuel in brick factories in the Ukraine. Stroi.mat. 4 no.10:24-26 O '58. (MIRA 11:11)
(Ukraine--Gas as fuel) (Ukraine--Brickmaking)

BARANOV, L.A., inzh.; SKRYLEVA, G.I., inzh.; STANKEVICH, F.M.; VERTIKO.., T.A.

Using alcohol-containing waste products from chemical industries as a type of reagent in the flotation of coal slurry. Nauch. trudy Kuz-NIIUgleobog. no.23:93-116 '64. (MIRA 17:10)

DUEL', M.A., kand.tekhn.nauk; RABINOVICH, O.M., prof.; STANKEVICH, G.L., inzh.; FAYERSHTEYN, D.G., kand.tekhn.nauk

Testing the steam superheater of a high-pressure boiler fired with ash. Elek.sta. 29 no.8:22-25 Ag '58. (MIRA 11:11)
(Superheaters--Testing)

STANKEVICH, G.L.

STANKEVICH, G.L.

"The Ukrainian S.S.R. and the Moldavian S.S.R.; economic map for secondary schools." Reviewed by G.L. Stankevich. Izv. Vses. geog. ob-va 89 no.6:561-563 N-D '57. (MIRA 10:12)
(Ukraine--Maps) (Moldavia--Maps)
(Geography, Economic)

LIPOVETSKIY, S.Ye., inzh.; STANKEVICH, G.L., inzh.; FAYERSHTEYN, D.G., kand. tekhn. nauk

Utilizing the heat of the flue gases in burning natural gas under the steam boilers. Izv. vys. ucheb. zav.; energ. 2 no.7:69-73 Jl '59. (MIRA 13:1)

1.Khar'kovskiy politekhnicheskiy institut im. V.I. Lenina.
(Boilers)

VYSOTSKAYA, A.I., inzh.; GORBATKO, P.A., inzh.; STANKEVICH, G.L., inzh.; FAYERSHTEYN, D.G., kand.tekhn.nauk

Complete analysis of blue gas in the combustion of natural gas under steam boilers. Izv.vys.ucheb.zav.; energ. 2 no.12: 85-89 D '59. (MIRA 13:5)

1. Khar'kovskiy politekhnicheskiy institut imeni V.I.Lenina Predstavlena kafedroy kotlostroyeniya.
(Gas as fuel)

RABINOVICH, O.M., prof.; FAYERSHTEYN, D.G., kand.tekhn.nauk; STANKEVICH, G.L., inzh.; YERSHENKO, R.V.

Testing a steam superheater of a boiler fired with natural gas. Elek.sta. 31 no.1:2-8 Ja '60. (MIRA 13:5)
(Superheaters--Testing)

RABINOVICH, O.M., prof.; FAYERSHTEYN, D.G., kand.tekhn.nauk;
STANKEVICH, G.L., inzh.

Experimental investigation of gas burners with peripheral gas feed. Elek.sta. 31 no.2:2-6 F '60. (MIRA 13:5)
(Gas burners)

ZAROCHENTSEV, G.G., inzh.; LEBEDEV, F.M., inzh.; STANKEVICH, G.L., inzh.; PET'KO, V.M., kand.tekhn.nauk; FAYERSHTEYN, D.G., inzh.

Gas burner with peripheral gas supply for large boiler units. (MIRA 15:8)
Elek. sta. 33 no.7:12-15 Jl '62.
(Boilers) (Gas burners)

KORBUG, Ye.V., inzh.; MERKHALEV, S.D., kand.tekhn.nauk; STANKEVICH, G.S., inzh.; Prinimal uchastiye PAVLOV, K.A.

Study of the discharge characteristics of soiled insulators. Elektrichestvo no.3:76-81 Mr '62. (MIRA 15:2)

1. Nauchno-issledovatel'skiy institut postoyannogo toka.
(Electric insulators and insulation)

KORBUT, Ye.V.; MERKHALEV, S.D.; STANKEVICH, G.S.

Laboratory studies of the discharge characteristics of soiled insulators. Izv. NIIPT no.9:167-191 '62. (MIRA 15:12)
(Electric lines—Overhead)

MERKHALEV, S.D., kand.tekhn.nauk; STANKEVICH, G.S., inzh.

Duration of d.c. potential withstanding strength of suspension insulators during heavy rains. Elektrichestvo no.2:70-72 F '63. (MIRA 16:5)

1. Nauchno-issledovatel'skiy institut postoyannogo toka.
(Electric power distribution) (Electric lines--Overhead)

STANKEVICH, I. A. Dr. Med. Sci.

Dissertation: "The Development of the Lower Sincipital Region in the Human." First Moscow Order of Lenin Medical Inst. 9 Jun 47.

SO: Vechernyaya Moskva, Jun, 1947 (Project #17836)

STANKEVICH, I.A.

Stankevich, I.A. "The development of the insular lobe of the human brain in the post-natal period", Trudy In-ta mozga (Gos. in-t mozga M-va zdravookhraneniya SSSR), Issue 6, 1948, p. 130-50, Tables XIX-XXII of an atlax (inserts).

SO: U-3042, 11 March 53, (Letopis 'nykh Statey, No. 9, 1949)

STANKEVICH, I.A.

"Neurological syndromes in rheumatism." I. Hausmanowa. E. Herrmann.
Reviewed by I.A. Stankevich. Zhur.nevr. i psikh.55 no.9:702-704 '55.
(MLRA 8:11)
(NERVOUS SYSTEM--DISEASES)
(RHEUMATIC FEVER) (HAUSMANOWA, I.)

STANKEVICH, I.A., doktor med.nauk; MAUMOVA, T.S., kand.biol.nauk

Some recent data on the brain. Vest.AMN SSSR 11 no.5:24-34 '56. (MIRA 12:10)

(BRAIN
morphol.structure & physiol. funct., interrelation in health & dis., review.

STANKEVICH, I.A.

"Electroencephalography" Andrzej and Karolina Jus. Reviewed by I.A. Stankevich. Zhur. nevr. i psikh. 56 no.1:65-68 '56. (MLRA 9:4)

(ELECTROENCEPHALOGRAPHY) (JUS, ANDRZEJ) (JUS, KAROLINA)

STANKEVICH, I.A.

"Problems of the highe nervous activity" I.Gausmanov .Petrusevich.
Reviewed by I.A.Stankevich. Zhur.nevr. i psikh. 56 r .5:415 '56.
(PSYCHOLOGY, PHYSIOLOGICAL) (MLRA 9:8)
(GAUSMANOVA, I.)
(PETRUSEVICH, K.)

STANKEVICH, I.A.

"Motor disorders in apoplexy and their treatment" [in Polish] by Irena Hausmanowa. Reviewed by I.A.Stankevich. Zhur.nevr. i psikh. 57 no.1:151-152 '57. (MLRA 10:3)

(APOPLEXY) (NERVOUS SYSTEM--DISEASES)

STANKEVICH, I.A.; KHACHATURYAN, A.A.

"Features of the structure of the human cerebrum and the temporal lobe of man and monkeys" by S.M.Blinkov. Reviewed by I.A.Stankevich, A.A.Khachaturian. Zhur.nevr. i psikh. 57 no.6:788-790 '57.
(BRAIN) (BLINKOV, S.M.) (MLRA 10:10)

KUZ'MINA, A.V.; STANKEVICH, I.A.

"Trudy" of the Avicenna Medical Institute in Stalinbad, Papers of the Department of Normal Anatomy, vol. 14, no.1, 1955, vol.25, no.2, 1957. Reviewed by A.V. Kuz'mina, I.A. Stankevich. Arkh.anat. gist, i embr. 36 no.2:85-88 F '59. (MIRA 12:2)

1. Adres avtorov: Moskva, B-120, per. Obukha, d. 5, Institut mozga AMN SSSR.

(ANATOMY--PERIODICALS)

STANKEVICH, I.A.

Theodor Meynert; on the 125th anniversary of his birth. Zhur. nevr. i psikh. 59 no.5:606 '59. (MIRA 12:7)
(BIOGRAPHIES,
Meynert, Theodor (Rus))

POPOVA, E.N., kand.biologicheskikh nauk; PREOBRAZHENSKAYA, N.S., doktor med.nauk; STANKEVICH, I.A., doktor med.nauk

Results of a conference on the "Structure and function of the human analyzer in ontogeny." Vest. AMN SSSR 15 no.6:85-90 '60. (MIRA 14:4)

(BRAIN--LOCALIZATION OF FUNCTIONS)

STANKEVICH.I.

"Neurological syndromes in rheumatic fever and in so-called collagen diseases" by I.Hausmanowa-Petrusewicz, E.Herman. Reviewed by I.Stankevich. Zhur. nevr. i psikh. 60 no.3:377-378 '60 (MIRA 14:2)

(RHEUMATIC FEVER) (COLLAGEN DISEASES)
(NERVOUS SYSTEM--DISEASES)
(HAUSMANOWA-PETRUSEWICZ, I.) (HERMAN, E.)

SARKISOV, S.A., red.; KUKUYEV, L.A., red.; POLYAKOV, G.I., red.; PREOBRAZHENSKAYA, N.S., red.; STANKEVICH, I.A., red.; TROFIMOV, L.G., red.; ARKHANGEL'SKIY, Yu.V., red.; LYUDKOVSKAYA, N.I., tekhn. red.

[Structure and function of the analysors of man in antogenesis] Struktura i funktsiia analizatorov cheloveka v ontogeneze; trudy. Pod obshchei red. S.A.Sarkisova. Moskva, Medgiz, 1961. 296 p. (MIRA 15:12)

1. Rasshirennaya nauchnaya konferentsiya instituta mozga, 1959. 2. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for Sarkisov). 3. Institut mozga Akademii medtisinskikh nauk SSSR, Moskva (for Polyakov, Kukuyev).
(SENSE-ORGANS) (ONTOGENY)

STANKEVICH, I.A.; KHACHATURYAN, A.A.

"Neuropathology and psychiatry" (Collected scientific works of neuropathologists and psychiatrists of the Latvian S. S. R.). Reviewed by I.A. Stankevich and A.A. Khachaturian. Zhur. nevr. i psikh 61 no.8:1271-1273 '61. (MIRA 15:3)
(PSYCHIATRY)
(NERVOUS SYSTEM--DISEASES)

NAUMOVA, T.S.; STANKEVICH, I.A. (Moskva)

Results of the conference on the problem "Structure and function of the nervous system." Zhur. nevr. i psikh. 61 no.11:1737-1740 '61. (MIRA 15:2)

(NERVOUS SYSTEM)

STANKEVICH, I.A.

Comparative characteristics of the development of the cerebrum in man and monkeys. Zhur. nevr. i psikh. 61 no.12:1772-1780 '61. (MIRA 15:7)

1. Institut mozga AMN SSSR, Moskva.
(BRAIN)

STANKEVICH, I.

"Introduction to clinical neuropathology" by F.A. Poemnyi and E.P. Semenova. Reviewed by I. Stankevich. Zhur. nevr. i psikh. 62 no.2:299-301 '62. (MIRA 15:6)

(NERVOUS SYSTEM--DISEASES)
(POEMNYI, F.A.) (SEMENOVA, E.P.)

STANKEVICH, I.A.

"Problems in clinical neurology and psychiatry. Collected works of neuropathologists, neurosurgeons and psychiatrists in Estonia. Vol. 1. Tallinn, 1961." Reviewed by I.A.Stankevich. Zhur.nerv.i psikh. 62 no.6:950-951 '62. (MIRA 15:11)
(ESTONIA -PSYCHIATRY)
(ESTONIA--NEUROLOGY)

NAUMOVA, T.S.; STANKEVICH, I.A.

Review of the book "Recticular formation of the brain".
Zhur.vys.nerv. deiat. 13 No.2:375-382 Mr-Ap'63. (MIRA 16:9)
(BRAIN)

PREOBRAZHENSKAYA, N.S.; STANKEVICH, I.A.

Review of M.B. TSuker's book "Fundamentals of pediatric neuropathology." Zhur. nevr. i. psikh. 63 no.6:942-944 '63. (MIRA 17:6)

STANKEVICH, I. A.

"Sravnitel'naya kharakteristika onto i filogeneza bolyshogo mozga cheloveka i nizshey obez'yany."

reports submitted for 7th Intl Cong, Anthropological & Ethnological Sciences, Moscow, 3-10 Aug 64.

STANKEVICH, I.A. (Moskva)

Specialization of the course of ontogeny of the human brain. Usp. sovr. biol. 58 no. 3:409-422 N-D '64. (MIRA 18:1)

STANKEVICH, I.I.; NIKOLAYEV, A.F., prof., doktor tekhn. nauk, red.

[Graphic statics; a manual] Grafostatika; uchebnoe posobie. Moskva, Mosk. stankoinstrumental'nyy in-t, 1963. 38 p. (MIRA 17:7)

SHABEL'NIKOV, G.P.; LISOVSKIY, G.D.; STANKEVICH, I.M.; RUDENKO, A.M.; LEDYAYKIN, S.D.; ZEMLYANOV, V.P.

Testing a system of sublevel caving with breaking and drawing of the ore in inclined layers. Gor. zhur. no.6:23-24 Je '62. (MIRA 15:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut tsvetnykh metallov, Ust'-Kamenogorsk (for Shabel'nikov, Lisovskiy, Stankevich). 2. Salairskiy rudnik (for Rudenko, Ledyaykin, Zemlyanov).

(Salair region--Mining engineering)

STANKEVICH, A.M.; STANKEVICH, I.M., inzh.

Measures which made possible the improvement of the technical conditions of NB-406 engines. Elek. i tepl.tiaga 6 no.8:16-18 Ag '62. (MIRA 17:3)

1. Zamestitel' nachal'nika depo Kurgan Yuzhno-Ural'skoy dorogi (for A.M.Stankevich). 2. Apparatnyy tsekh depo Kurgan Yuzhno-Ural'skoy dorogi (for I.M.Stankevich).

SHKABARNYA, B.M., inzh.; SOLOV'YEV, G.A., inzh.; STANKEVICH, I.M., inzh.; LISOVSKIY, G.D., inzh.

Using reduced diameter boreholes. Gor. zhur. no.8:74 Ag '64. (MIRA 17:10)

1. Salairskiy rudnik (for Shkabarnya, Solov'yev).
2. Vsesoyuznyy nauchno-issledovatel'skiy institut tsvetnoy metallurgii (for Stankevich, Lisovskiy).

STANKEVICH, I. V.

AUTHORS: Bochvar, D. A., Stankevich, I. V., Chistyakov, A. L. 62-11-27/29

TITLE: On the Relationship Between the Electron-Gas Method and the Molecular Orbit Method (K sootnosheniyu mezhdu metodom elektronnogo gaza i metodom molekulyarnykh orbit)

PERIODICAL: Izvestiya AN SSSR, Otdel.Khim.Nauk, 1957, Nr 11, pp. 1414-1414 (USSR)

ABSTRACT: This is a letter to the editor. It is shown that instead of the usually applied formula:

$$\frac{d^2\Psi(x)}{dx^2} + \frac{2m}{\hbar} E\,\Psi(x) = 0 \qquad (1)$$

a much more common equation

$$\frac{d^2\Psi(x)}{dx^2} + Ak\Psi(x) = 0 \qquad (2)$$ can be applied.

That is to say, with the same boundary conditions, where A is a parameter, which is at our disposal. By this equation an oscillation system can easily combined, where a certain point $x(C_i)$ is opposed to the i.atom C. If the distance between the adjacent C-atoms is equal, the p.coefficient of the j.linear combination of the molecular orbits methods becomes equal to the value of the j.equation (2) in the point $x(C_p)$. If the distance is different,

Card 1/2

AUTHORS: Bochvar, D. A., Stankevich, I. V., Chistyakov, A. L. SOV/62-58-6-31/37

TITLE: Letter to the Editor (Pis'ma redaktoru) Calculation of the Conjunction Energy in the S̄-Triphenyl-Cyclopropenyl Cation (Raschet energii sopryazheniya dlya S̄-trifeniltsiklopropenil-kationa)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk, 1958, Nr 6, pp. 793-793 (USSR)

ABSTRACT: In connection with the statement made concerning the synthesis of the S̄-triphenyl-cyclopropenyl cation (Ref 1) the calculation of this compound was carried out by the LKAO MO-method in π-electron approximation. The authors proceeded from the following assumptions:
1) the σ-skeleton is flat and shows the symmetry group C_{3v})
2) all bond lengths are equal,
3) all Coulomb integrals are equal among themselves (equal to α),
4) all resonance integrals are equal (equal to β),
5) AO is passed over by overlapping integrals. Calculation

Card 1/3

Letter to the Editor. Calculation of the Conjunction Energy in the S-Triphenyl-Cyclopropenyl Cation

SOV/62-58-6-31/37

showed that a closed electron shell (in the sense of Khykkel) exists. 20π-electrons of the system take up 10 molecular orbitals corresponding to their energy (in ascending order):
$\alpha + 2{,}61\beta$, $\alpha + 2{,}06\beta$, $\alpha + 1{,}79\beta$, $\alpha + 1{,}15\beta$ (twofold degenerated level), $\alpha + \beta$ (threefold degenerated level) and $\alpha + 0{,}76\beta$. For the compound discussed the conjunction energy (compared with the system of isolated binary bonds) is $9{,}16\beta$ and exceeds the sum of the conjunction energies in phenyl rings and in the cyclopropenyl cation by $1{,}16\beta$. There is 1 reference.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR (Institute of Elemental-organic Compounds AS USSR)

SUBMITTED: February 26, 1958

Card 2/3

Letter to the Editor . Calculation of the Conjunction Energy in the S-Triphenyl-Cyclopropehyl Cation

SOV/62-58-6-31/37

1. Cyclic compounds--Properties 2. Cyclopropenyl ions--Energy 3. Mathematics 4. Perturbation theory

Card 3/3

5(4) SOV/76-32-12-22/32

AUTHORS: Bochvar, D. A., Gambaryan, N. P., Stankevich, I. V., Chistyakov, A. L.

TITLE: A Qualitative Evaluation of the Stability of Heterocyclic Systems by Hueckel's Method of Approximation (O kachestvennoy otsenke ustoychivosti geterotsiklicheskikh sistem v ramkakh priblizheniya Gyukkelya)

PERIODICAL: Zhurnal fizicheskoy khimii, 1958, Vol 32, Nr 12, pp 2797 - 2802 (USSR)

ABSTRACT: E. Hueckel (Ref 1) used the words "closed electron shell" to explain the relative stability of cyclic ions. With molecules forming regular polygons of CH-groups, the first, not degenerate level is followed by several doubly degenerate levels. If these levels are gradually filled in with π-electrons, closed electron shells are formed for systems with 2, 6, 10, 14 .... π-electrons in accordance with Pauli's principle. When a CH-group is replaced by an atom other than a C-atom or when a substitution takes place, the energy change may be considered as being a disturbance which does not exert any influence on the closed shell. A study is made of the general stability of

Card 1/2

SOV/56-36-2-48/63

24(5)
AUTHORS: Bochvar, D. A., Gambaryan, N. P., Stankevich, I. V., Chistyakov, A. L.

TITLE: On Some Properties of Symmetry of the Eigenfunctions of the Equation of Schrödinger (O nekotorykh svoystvakh simmetrii sobstvennykh funktsiy uravneniya Shredingera)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 36, Nr 2, pp 626-627 (USSR)

ABSTRACT: The present paper deals with 2 facts hitherto (according to the authors' opinion) not discussed in literature. 1) The symmetry groups of the eigenfunctions of the Schrödinger (Shredinger) equation are subgroups of the symmetry group G_H of the corresponding Hamiltonian $\hat{H}$. 2) The contrary of statement 1) is not true, i.e. there are no subgroups of the group G_H which are not symmetry groups of the eigenfunctions of a given Schrödinger equation. The proofs of the correctness of these 2 assertions are discussed step by step. The groups of the solutions of a Schrödinger equation with a total system of eigenfunctions consist of all the possible co[illegible]nels of the symmetry

Card 1/2

On Some Properties of Symmetry of the Eigenfunctions of the Equation of Schrödinger

group of the Hamiltonian. There are 3 references, 1 of which is Soviet.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR (Institute of Element-Organic Compounds of the Academy of Sciences, USSR)

SUBMITTED: October 25, 1958

BOCHVAR, D.A.; STANKEVICH, I.V.; CHISTYAKOV, A.L.

Conjugation energies of the phenylcyclopropenyl and diphenylcyclopropenyl cations. Zhur. fiz. khim. 34 no. 11:2543-2545 N '60. (MIRA 14:1)

1. Akademiya nauk SSSR, Institut elementoorganicheskikh soyedineniy.
(Cyclopropene) (Chemical bonds)

86827

S/020/60/135/005/015/043
B019/B067

24.4500

AUTHORS: Bochvar, D. A., Stankevich, I. V., and Chistyakov, A. L.

TITLE: Entropy of Localization and Extension in a Quantum Mechanical System

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 135, No. 5, pp. 1095-1096

TEXT: In a previous paper (Ref. 1), the authors together with N. P. Gambaryan suggested the definition of delocalization of a particle in a steady state of a quantum mechanical system as entropy of localization which might be calculated by appropriate eigenfunctions of the system. If $\psi(x_1, y_1, z_1, \ldots, x_n, y_n, z_n)$ is the steady state of a system consisting of n particles, the probability density for the position of the i-th particle is $\Phi(\tau_i) = \int_{R_{3n-3}} |\psi|^2 d\tau_1 \ldots d\tau_{i-1} d\tau_{i+1} \ldots d\tau_n$, and the entropy of the localization $h_i = -\int_{R_3} \Phi(\tau_i) \log \Phi(\tau_i) d\tau_i$. Here, R with the

Card 1/3

Entropy of Localization and Extension in a Quantum Mechanical System

S/020/60/135/005/015/045
B019/B067

respective index denotes the space $d\tau_i = dx_i dy_i dz_i$, over which integration is made. In the present paper, a system is studied consisting of m + k particles. m particles (e.g., positive nuclei) are fixed in this system, k denotes the number of similar particles (e.g., electrons). The problem arises as to what degree this definition is connected with the concept of extension. The authors attempted to introduce a theoretical characteristic of extension into the quantum mechanical system considered here. They regard a coincidence of this quantum mechanical concept and the concept of space in the ordinary sense as necessary. It may then easily be demonstrated that with homogeneous distribution (constant density) in a given finite range D of the space R with a volume V_D (in the ordinary sense) the local entropy h which is determined by $h = -\int_D \rho \log_b \rho \, d\tau$ is $\log_b V_D$, i.e., $V_D = b^h$. In the following, the authors define the h-extension of particles in the quantum mechanical system (with given state) by $V_H = e^h$ volume units. It is found that the h-extension is independent of

86827

Entropy of Localization and Extension in a Quantum Mechanical System

S/020/60/135/005/015/043
B019/B067

the base of the logarithm which proves the correctness of the definition. Finally, some examples are briefly discussed in which N. P. Gambaryan and E. S. Bogatova calculated the particle entropy in a potential well. There is 1 Soviet reference.

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Card 3/3